

Appl. No. 09/835,806
Amdt. dated 01/07/2005
Reply to Office action of 10/07/2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended):

A method of sending information via a network of computers, comprising:

receiving an information packet for delivery to a plurality of users, each of the plurality of users having an address on the network of computers; packet;
identifying a plurality of addresses corresponding to the information packet;
determining an acceptable next destination for each address of the plurality of addresses;
making a first selection of addresses from the addresses of the plurality of users that are reachable via selecting addresses having a first network device; device as the acceptable next destination to provide selected addresses; and
providing a bundled packet to the first network device, the bundled packet including the selected first selection of addresses and the information packet.

2. (currently amended):

The method of claim 1, further comprising:

receiving the bundled packet at the first network device;
determining, for each address in the bundled packet, an acceptable next destination;
choosing addresses in the bundled packet having a second network device as the acceptable next destination to provide a group of chosen addresses; and
making a second selection of addresses from the first selection of addresses that are reachable via a second network device; and
providing a new bundled packet to the second network device, the new bundled packet including the group of chosen second selection of addresses and the information packet.

3. (currently amended):

The method of claim 1, further comprising:

receiving the bundled packet at the first network device;
determining, for each address in the bundled packet, an acceptable next destination;
choosing addresses in the bundled packet having a second network device as the acceptable next destination to provide a group of chosen addresses;
making a second selection of addresses from the first selection of addresses that are reachable via a second network device;

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determining whether the second network device is capable of interpreting bundled packets; and

if the second network device is determined to be capable of interpreting bundled packets, providing a new bundled packet to the second network device, the new bundled packet including the ~~group of chosen~~ second selection of addresses and the information packet.

4. (currently amended):

The method of claim 3, further comprising, if the second network device is determined not to be capable of interpreting bundled packets, providing an unbundled packet to the second network device for each address in the second selection of addresses ~~device, each of the unbundled packets~~ packet including only one of the address from the second selection of addresses in the group of chosen addresses and the information packet.

5. (original):

The method of claim 1, further comprising:

receiving the bundled packet at the first network device;

determining, for each address in the bundled packet, an acceptable next destination;

determining whether any of the addresses do not have a corresponding acceptable next destination that is capable of interpreting bundled packets;

choosing an address in the bundled packet having no acceptable next destination that is capable of interpreting bundled packets; and

providing an unbundled packet to the acceptable next destination corresponding to the chosen address, the unbundled packet including the chosen address and the information packet.

6. (original):

The method of claim 1, further comprising:

receiving the bundled packet at the first network device;

determining, for each address in the bundled packet, an acceptable next destination;

choosing one of the addresses in the bundled packet having an acceptable next destination that is not also an acceptable next destination of another of the addresses in the bundled packet; and

providing an unbundled packet to the acceptable next destination, the unbundled packet including the chosen one of the addresses and the information packet.

7. (original):

The method of claim 1, further comprising:

receiving the bundled packet at the first network device;

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determining whether a second network device resides between a user at one of the plurality of addresses and the first network device; and
if a second network device is determined not to reside between the user and the first network device, then providing the information packet to the one of the plurality of addresses.

8. (currently amended):

A method of sending information over a communications network, comprising:

receiving an information packet for delivery to a first and a second user having a first and a second address respectively; ~~address;~~

determining whether both the first address and the second address are reachable via a first network device; and

if both the first address and the second address are determined to be reachable via the first network device, providing a bundled packet to the first network device, the bundled packet including the first address, the second address and the information packet

determining whether both the first address and the second address are reachable via a second network device;

determining whether the second network device is capable of interpreting bundled packets; and

if the first address and the second address are determined to be reachable via the second network device, and the second network device is determined to be capable of interpreting bundled packets, providing the bundled packet to the second network device.

9. (original):

The method of claim 8, further comprising:

if both the first address and the second address are determined not to be reachable via the second network device, then determining whether the first address is reachable via the second network device; and

if the first address is determined to be reachable via the second network device, providing an unbundled packet to the second network device, the unbundled packet including the first address and the information packet.

10. (original):

The method of claim 8, further comprising, if the second network device is determined not to be capable of interpreting bundled packets, then providing a first unbundled packet to the second network device, the first unbundled packet including the first address and the information packet.

11. (original):

The method of claim 10, further comprising:

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providing a second unbundled packet to the second network device, the second unbundled packet including the second address and the information packet.

12. (original):

The method of claim 8, further comprising:

determining whether a second network device resides between a user at the first address and the first network device; and

if a second network device is determined not to reside between the user and the first network device, then providing the information packet to the first address.

13. (currently amended):

A packet building device, comprising:

a routing table memory device, the routing table memory device being capable of storing an address, a corresponding next destination and a corresponding indicator, the next destination being along a route from the packet building device to a user corresponding to the address, and the indicator indicating whether the corresponding next destination is able to interpret a bundled packet, the bundled packet including an information packet and at least two addresses, there being at least two users with each of the at least two users corresponding to one of the at least two addresses;

an analysis circuit capable of determining whether any of a plurality of addresses bundled together in a bundled packet received by the packet building device have a common next destination indicated by the routing table, and capable of determining whether the indicator corresponding to the common next destination indicates that the common next destination is able to interpret bundled packets; and

a bundled packet construction circuit, capable of building a bundled packet to be provided by the packet building device if the analysis circuit determines that (a) two or more of the addresses among the plurality of addresses have the common next destination, and (b) the common next destination is able to interpret bundled packets, the bundled packet to be provided by the packet building device including the information packet and the two or more of the addresses that have the common next destination.

14. (original):

The packet building device of claim 13, further comprising an unbundled packet construction circuit capable of building an unbundled packet to be provided by the packet building device if the analysis circuit determines that an address among the plurality of addresses does not have a next destination that is the same next destination corresponding to another of the addresses among the plurality of addresses, the unbundled packet to be provided by the packet building device including the information packet.

15. (currently amended):

The packet building device of claim 14, wherein the unbundled packet to be provided by the packet building device further includes only one of the at least two addresses, the address:

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16. (currently amended):

The packet building device of claim 13, further comprising an unbundled packet construction circuit capable of building an unbundled packet to be provided by the packet building device if the analysis circuit determines that an address among the plurality of addresses does not have a corresponding next destination that is able to interpret bundled packets, the unbundled packet to be provided by the packet building device including the information packet, the unbundled packet construction circuit building unbundled packets for each of the at least two addresses in the bundled packet.

17. (currently amended):

The packet building device of claim 16, wherein the unbundled packet to be provided by the packet building device further includes only one of the at least two addresses. ~~the address.~~

18. (original):

A system, comprising:

a server capable of (a) receiving an information packet, (b) identifying a plurality of addresses corresponding to the information packet, (c) determining an acceptable first destination for each address of the plurality of addresses, and (d) selecting addresses having a first network device as the acceptable first destination;

a first network device in communication with the server and capable of (a) receiving the information packet, (b) determining an acceptable second destination for each address associated with the information packet received by the first network device, and (c) sending the information packet to the second destinations.

19. (original):

The system of claim 18, wherein the first network device is capable of determining whether one of the second destinations is capable of interpreting the information packet if the information packet is provided to the one of the second destinations in a form that associates the information packet with a plurality of addresses.

20. (original):

The system of claim 18, wherein the first network device is in communication with a user.